

## Newton's Third Law of Motion Notes Review

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Table: \_\_\_\_\_ Section: \_\_\_\_\_

- 1) State Newton's Third Law of Motion and give an example.
- 2) According to Newton's third law of motion, how are action and reaction forces related?
- 3) What is momentum and give an example of momentum.
- 4) What is conservation of momentum?
- 5) The total momentum of two marbles before a collision is  $0.06 \text{ kg}\cdot\text{m/s}$ . No outside forces act on the marbles. What is the total momentum of the marbles after the collision?

### **Performance Task: Calculating Momentum**

6) Which has more momentum: a 3.0 kg sledgehammer swung at 1.5 m/s, or a 4.0 kg sledgehammer swung at 0.9 m/s?

7) A golf ball travels at 16 m/s, while a baseball moves at 7 m/s. The mass of the golf ball is 0.045 kg and the mass of the baseball is 0.14 kg. Which has greater momentum?

8) What is the momentum of a bird with a mass of 0.018 kg flying at 15 m/s?

9) What is the momentum of a 920 kg car moving at a speed of 25 m/s?

10) Which has more momentum: a 250 kg dolphin swimming at 4 m/s, or a 350 kg manatee swimming at 2 m/s?